

AS 1026—1992

Australian Standard[®]

**Electric cables—Impregnated
paper insulated—Working
voltages up to and including 33 kV**

This Australian Standard was prepared by Committee EL/3, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 6 July 1992 and published on 12 October 1992.

The following interests are represented on Committee EL/3:

Australian Electrical and Electronic Manufacturers Association
Department of Defence
Office of Energy, New South Wales
Electrical Contractors Association of Australia
Electrical regulatory authorities
Electricity Supply Association of Australia
Railways of Australia Committee
Testing interests

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS 1026—1992

Australian Standard[®]

**Electric cables—Impregnated
paper insulated—Working
voltages up to and including 33 kV**

First published as AS C92—1941.
Withdrawn—1970.
Revised and redesignated AS 1026—1973.
Second edition 1992.

Incorporating:
Amendment 1—1993
Amendment 2—1994

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 7678 2

PREFACE

This Standard was prepared by the Standards Australia Committee on Electric Wires and Cables to supersede AS 1026—1973, *Impregnated paper insulated cables for electricity supply at working voltages up to and including 33 kV*.

In the preparation of this Standard, consideration was given to IEC 55 Parts 1 and 2* and to BS 6480†. The Standards Australia Committee concurs with the comment in the Foreword of BS 6480 that, because of different local and regional requirements, it has not been possible to adopt the IEC Publication as a national Standard. Consequently, the construction and voltage ratings of cables in the Australian Standard are identical with corresponding cables in BS 6480.

Acknowledgement is made of the assistance received from BS 6480 and IEC 55.

This Standard differs from the 1973 edition as follows:

- (a) Aluminium-sheathed cables, steel-tape armoured cables and solid aluminium conductor cables have been deleted.
- (b) Pre-impregnated types of cables have been deleted.
- (c) Only one lead alloy sheath is specified.
- (d) The range of cable sizes has been increased and 35 mm² cables added in some tables.
- (e) 11/11 kV screened cables have been added.
- (f) High density polyethylene (HDPE) has been added as an alternative to polyvinyl chloride (PVC) for the non-metallic sheath material.
- (g) Methods of test for paper insulation in AS 1660 have been replaced by IEC 554-2 and Appendix E.

* IEC 55.1 Paper-insulated metal-sheathed cables for rated voltages up to 18/30 kV (with copper or aluminium conductors and excluding gas-pressure and oil-filled cables) Part 1: Tests.

IEC 55.2 Paper-insulated metal-sheathed cables for rated voltages up to 18/30 kV (with copper or aluminium conductors and excluding gas-pressure and oil-filled cables) Part 2: General and construction requirements.

† BS 6480 Impregnated paper-insulated lead or lead alloy sheathed electric cables of rated voltages up to and including 33 000 V.

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

	<i>Page</i>
1 SCOPE	5
2 REFERENCED DOCUMENTS	5
3 DEFINITIONS	5
4 OPERATING VOLTAGES	6
5 MAXIMUM CONDUCTOR TEMPERATURES	6
6 CONDUCTORS	6
7 CONDUCTOR SCREEN	8
8 INSULATION	8
9 CORE IDENTIFICATION	8
10 INSULATION SCREEN	8
11 LAYING UP	8
12 IMPREGNATION	9
13 IDENTIFICATION OF MANUFACTURER	9
14 LEAD ALLOY SHEATH	9
15 BEDDING	9
16 ARMOUR	10
17 NON-METALLIC SHEATH OR SERVING	10
18 COMPOUNDS FOR LAPPED BEDDING AND SERVING	10
19 CABLE MARKINGS	10
20 SEALING AND PREPARATION FOR DELIVERY	11
21 TESTS	11
TABLES	
1 MAXIMUM PERMISSIBLE CONTINUOUS CONDUCTOR TEMPERATURES	6
2 SCHEDULE OF TESTS	12
3 TEST VOLTAGE ON COMPLETED CABLE AT WORKS	13
4 DIELECTRIC DISSIPATION FACTOR OF 19/33 kV CABLES	13
5 DIAMETER OF TEST CYLINDERS FOR BENDING TEST	14
6 MAXIMUM NUMBER OF TEARS IN PAPERS AS A RESULT OF BEND TEST	14
7 MAXIMUM DRAINAGE	15
8 0.6/1(1.1) kV SINGLE-CORE LEAD ALLOY SHEATHED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	15
9 0.6/1(1.1) kV TWO-CORE LEAD ALLOY SHEATHED BELTED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	16
10 0.6/1(1.1) kV THREE-CORE LEAD ALLOY SHEATHED BELTED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	16
11 0.6/1(1.1) kV FOUR-CORE LEAD ALLOY SHEATHED BELTED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS OF EQUAL AREA	17
12 0.6/1(1.1) kV FOUR-CORE LEAD ALLOY SHEATHED BELTED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS INCLUDING A REDUCED NEUTRAL CONDUCTOR	17
13 1.9/3.3(3.6) kV SINGLE-CORE LEAD ALLOY SHEATHED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	18
14 1.9/3.3(3.6) kV THREE-CORE LEAD ALLOY SHEATHED BELTED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	18
15 3.8/6.6(7.2) kV SINGLE-CORE LEAD ALLOY SHEATHED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	19
16 3.8/6.6(7.2) kV THREE-CORE LEAD ALLOY SHEATHED BELTED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	19
17 6.35/11(12) kV SINGLE-CORE LEAD ALLOY SHEATHED CABLES WITH STRANDED ALUMINIUM OR COPPER CONDUCTORS	20

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-